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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,495	07/02/2003	Tienteh Chen	200209928-1	4418

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,495

Applicant(s)

CHEN ET AL.

Examiner

Pamela R. Schwartz

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 7, 9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) 9, 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20060403.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1774

1. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admissions in their 131 Declaration. The papers filed by applicants admit that both the base paper and the ink receptive coating of their invention were known at the time of their invention. Based upon this admission, it would have been obvious to one of ordinary skill in the art to coat the commercially available base paper with a known ink receptive composition at a conventional coating weight in order to obtain an ink receptive medium.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Dagan et al. (6,291,127). The reference discloses that imaging members having base members with Sheffield smoothness and porosity within the instantly claimed ranges are known in the art. See Table 1. The reference discloses ink receiving layers ranging from 3 to 75 microns in thickness. As a general rule, this converts to approximately 3 to 75 g/m² (col. 12, lines 53-57). The ink receiving layer may contain polyvinyl alcohol, modified silica particles, surfactants, cross-linking agents and mordant (col. 12, line 58 col. 13, line 13 and lines 46-57).

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dagan et al. (6,291,127) as relied upon above and further in view of Shih et al. (6,780,924) and Koike et al. (6,777,039). Dagan et al. set forth categories of materials

Art Unit: 1774

that may be present but does not disclose groups of materials for each category.

Therefore, it is appropriate to look at materials that are known in the art for each of these categories. Shih et al. disclose that cationic colloidal silica and mordants as recited by claim 4 are known in the art as pigments and mordants respectively in ink receptive layers (see col. 5, lines 34-56). Therefore, it would have been obvious to one of ordinary skill in the art to include the silica of Shih et al. as the modified silica of the primary reference and to include poly(diallyldimethylammonium chloride, as well known mordant, as the mordant of the primary reference. Koike et al. disclose an ink jet recording sheet which includes polyvinyl alcohol as binder and boron compounds, including boric acid, to cross-link the binder (see col. 5, lines 9-28 and col. 10, lines 40-52). Based upon this disclosure of the effectiveness of boron compounds in cross linking polyvinyl alcohol, it would have been obvious to include boric acid as the crosslinker disclosed by the primary reference for its concomitant function therein.

4. Claims 1-3, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dagan et al. (6,291,127) as relied upon above and further in view of Nigam et al. (6,936,316). Dagan et al. set forth categories of materials that may be present but does not disclose groups of materials for each category. Therefore, it is appropriate to look at materials that are known in the art for each of these categories. Nigam et al. teach inclusion of polyethylene oxide siloxane surfactants in ink receptive layers of ink jet recording media (see Example 3). It would have been obvious to one of ordinary skill in the art to include this surfactant as the surfactant of the primary reference in order to improve coatability as suggested by the primary reference.

Art Unit: 1774

5. Applicant's arguments with respect to claims 1-4, 6 and 7 have been considered but are moot in view of the new ground(s) of rejection. With respect to the one rejection that has been repeated, over admissions submitted in the 131 Declaration, the response does not appear to contain any real argument concerning this rejection.

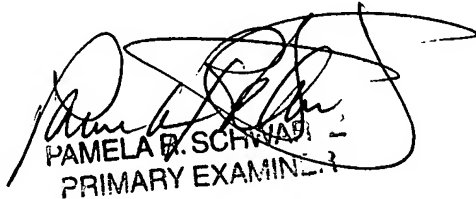
Applicants have lumped this rejection in with rejections of Nakano stating that without Nakano, the rejections, including the rejection based upon the 131 Declaration "cannot stand." Since Nakano is not relied upon in this rejection, applicants' argument is unpersuasive. In addition, this rejection is proper. Applicants' have admitted that both their claimed substrate and their ink receptive coating were known prior to their invention. The commercial base materials relied upon by applicants, have been used as base materials for ink jet recording. The coating composition would also have been known for its intended function as a coating for ink jet recording because it is particularly formulated to serve this function. Combination of a known substrate with a known ink jet coating composition would have been obvious to one of ordinary skill in the art. Determination of coating thickness in order for the coating to have sufficient ink absorbency would also have been obvious to one of ordinary skill in the art so that the medium can perform its intended function.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz
September 24, 2006



PAMELA B. SCHWARTZ
PRIMARY EXAMINER